

Abstract

The invention is an apparatus and method for on-line sorting of waste matter, at the entrance to a waste processing plant, according to the level of specific chemicals, typically chlorine detected therein. The apparatus comprises a waste matter inlet that provides waste matter to a weighing module, preferably until a preset limit is reached. Then, this control volume of waste is introduced into a pulsed neutron material analyzer that is optimized for the determination of the content of the specific chemical in the control volume. A control means such as a computer then decides whether the level of the chemical in the waste control volume is above or below a preset threshold, and accordingly channels the waste into one or another of two channels. One of these channels accepts waste with low content of the given chemical, for introduction into the waste processing chamber. The other channel stores the waste until, for example, it may be mixed with other waste having a sufficient low content such that the overall amount of the chemical is still below the threshold value.